

PROCEEDINGS
OF
THE ROYAL SOCIETY.

1843-44.

No. 59.

December 7, 1843.

The MARQUIS OF NORTHAMPTON, President, in the Chair.

The Minutes of the last Ordinary Meeting, and of the Anniversary Meeting were read.

Charles Hood, Esq., F.R.A.S., of Earl Street, Blackfriars, and Francis Rawdon Moira Crozier, Captain R.N., were put to the ballot, and respectively elected Fellows.

A paper was read, entitled, "On a sudden rise and fall of the Sea in the Dock-yard Creek, Malta, on the 21st and 25th June, 1843." By S. Napier, Esq., Master-Attendant. Communicated by the Lords Commissioners of the Admiralty.

At 6 o'clock, A.M. on the 21st of June, the water was found to be 6 inches above the average height, and continued so till $6\frac{3}{4}$, when it rose to 18 inches, and in a few minutes sank to 3 feet 6 inches below the average; which oscillations continued till $8\frac{1}{2}$ A.M., when it resumed its usual level. On the 25th, a rise to the extent of 2 feet 6 inches above, followed by a fall of 3 feet below, the average, was observed; these alternations in height recurring four several times on that day. The author was unable to assign any particular cause for these extraordinary agitations of the sea.

December 14, 1843.

The MARQUIS OF NORTHAMPTON, President, in the Chair.

A paper was read, entitled, "Researches into the Structure and Development of a newly-discovered Parasitic Animalcule of the Human Skin, the *Entozoon folliculorum*." By Erasmus Wilson, Esq., Lecturer on Anatomy and Physiology in the Middlesex Hospital. Communicated by R. B. Todd, M.D., F.R.S.

The animalcules which are the subject of this paper were discovered above a year ago by Dr. Simon, who published a description

of their structure in the number of Müller's 'Archiv,' &c. for June 1842. This description was found by Mr. Wilson, who devoted to the investigation six months of exclusive labour, to be, in many essential particulars, exceedingly inaccurate and erroneous. The present paper contains the principal results of the author's researches on these singular animalcules, which inhabit the sebaceous follicles of the human skin, and feed on the secretions that surround them. The author enters into minute anatomical details of the structure of the various organs, and more particularly of the apparatus by which the head is retracted within the thorax, of the eyes, of the ova, and the remarkable embryonic forms which are presented in the progress of development of the young animal. He applies to this animalcule the term *entozoon*, merely as signifying an inhabitant of the interior of the body, and until a better and more appropriate appellation shall have been assigned to it.

A paper was also in part read, entitled, "Miscellaneous Observations on Animal Heat." By John Davy, M.D., F.R.S.

The President announced from the Chair, that Mr. Charles Richard Weld had been appointed Assistant Secretary.

December 21, 1843.

JAMES WALKER, Esq., Vice-President, in the Chair.

The reading of Dr. Davy's paper, entitled, "Miscellaneous Observations on Animal Heat," was resumed and concluded.

The author, in the first section of this paper, after adverting to the commonly received opinion that all fishes are cold-blooded, and noticing an exception, as he believes, in the instance of certain fishes of the genus *Thynnus* and of the *Scomber* family, describes the observations which he made whilst at Constantinople, on the temperature of the *Pelamys Sarda*, when, in three different examples, he found its heat to exceed that of the surface-water by 7° , and of the deep water probably by 12° .

He adduces some observations and remarks on peculiarities in the blood of the same fish, of the sword-fish and of the common tunny, which he supposes may be connected with their temperature; and throws out the conjecture, that the constitution of their blood-globule, formed of a containing and contained part, namely the globule and its nucleus, may be to each other in the electrical relation of positive and negative, and may thereby act with greater energy in separating oxygen in respiration.

In the second section, on the temperature of man in advanced old age, he relates a number of observations made for the purpose of determining the actual heat of persons exceeding eighty years of age; the result of which, contrary to the commonly received opinion, is, that the temperature of old persons, as ascertained by a thermome-